

REMARKS/ARGUMENTS

By filing the RCE, a request has been made to enter amendments to claims as submitted in the Amendment filed on March 14, 2007. Pursuant to the explanation from OPLA, the following amendment is made with an assumption that the requested amendments have now been entered.

By this Amendment, claims 89-92 are added. Claims 5, 6, 15, 17-25, 35-40, 46, 47, 53, 57-68, 74 and 87 have been withdrawn from consideration pursuant to a restriction requirement by the Examiner. Claim 84 is "constructively" canceled since it was inadvertently omitted from the original claim listing and never presented. Claims 1, 3-4, 7-14, 16, 26-34, 41-45, 48-52, 54-56, 69-73, 75, 80, 82-83, 85-86, and 88-92 are pending.

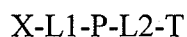
Support for new claims 89-92 can be found in the original disclosure, e.g., page 7.

In support of this submission and the statements made in the submission dated March 14, 2007, Applicants enclose the Rule 132 Declaration by Dr. Wickstrom.

As stated in paragraph 9 of the declaration, Dr. Wickstrom believes that knowledge of the invention did not exist in the prior art as the references combined by the Examiner do not disclose the problem or its source as described in the specification starting page 2, line 7 and continuing to page 4, line 25. Therefore, there would have been no motivation for one of ordinary skill in the art at the time of the invention to have made the proposed combination or to have modified the applied art to reach the instant invention.

Thus, as explained in paragraphs 4-9 of the declaration persons skilled in the art would have understood from the original specification that Applicants are entitled to claim a compound of claim 1 comprising a polymeric diagnostic or therapeutic moiety (X) covalently conjugated to at least one PNA (P) and at least one targeting moiety (T) that is capable of binding to a cell

surface molecule, wherein the PNA comprises a base sequence that is complementary to a target nucleic acid sequence, or pharmaceutically acceptable salts thereof, provided that the compound is represented by a formula



or pharmaceutically acceptable salts thereof, wherein L1 and L2 represent at least one linking moiety, provided that L1 is covalently bound to X and P and L2 is covalently bound to P and T.

Furthermore, even if the combination were suggested by the cited references (as stated in sections 9, 12, 14, and 15 of the Office Action dated November 14, 2006), the claimed invention would be unobvious if it "achieved more than a combination which any or all of the prior art references suggested, expressly or by reasonable implication." In re Sernaker, 702 F.2d 989, 994, 217 USPQ 1, 5 (Fed. Cir. 1983).

In paragraph 10 of the declaration, Dr. Wickstrom refers to his articles published (or still in press) after filing the application for description of unexpected results and success in radioimaging of cancer gene mRNAs in breast cancer xenografts [Tian X, Aruva MR, Qin W, et al. External imaging of CCND1 cancer gene activity in experimental human breast cancer xenografts with ^{99m}Tc -peptide-peptide nucleic acid-peptide chimeras. *Journal of Nuclear Medicine*. Dec 2004;45(12):2070-2082; Tian X, Aruva MR, Qin W, et al. Noninvasive molecular imaging of MYC mRNA expression in human breast cancer xenografts with a [^{99m}Tc]peptide-peptide nucleic acid-peptide chimera. *Bioconjugate Chemistry*. 2005;16(1):70-79] and in pancreas cancer xenografts [Chakrabarti, A., Aruva, M. R., Sajankila, S. P., Thakur, M. L., and Wickstrom, E. (2005) Synthesis of novel PNA-peptide chimera for non-invasive imaging of cancer. *Nucleosides, Nucleotides, and Nucleic Acids* 24:409-414; Chakrabarti, A., Zhang, K., Aruva, M.R., Cardi, C.A., Opitz, A.W., Wagner, N.J., Thakur, M.L., and Wickstrom, E. (2007)

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KRAS mRNA expression in human pancreatic cancer xenografts imaged externally with [⁶⁴Cu]DO3A-peptide nucleic acid-peptide chimeras. *Cancer Biology & Therapy* 6(6): in press] which resulted from the novel design of dual-specificity hybridization probes of the invention that required receptor-specific uptake, followed by mRNA-specific hybridization and retention in cancer cells.

Thus, even if the prior art creates a presumption that the present development is obvious, the Applicants have achieved surprising results which overcome this presumption. *See, e.g., Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966).

For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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